



NOAA in the Carolinas

National Oceanic and Atmospheric Administration



NOAA in the Carolinas **A Regional *OneNOAA* Partnership**

Presentation to NOAA Leadership
May 17, 2006
Silver Spring, MD



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Outline

- Who are we? (NinC map)
- NinC mission and activities
- 2004 annual meeting slides
- 2005 annual meeting slides
- Regional OneNOAA Initiative: Coastal Inland Flooding Observation and Warning Project (CIFLOW) slides
- Key Messages
- Future Objectives



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National Environmental Satellite Data Service

- National Climatic Data Center

National Marine Fisheries

- Fisheries Statistics Office

National Ocean Service

- Coastal Fisheries Habitat Research
- U.S.S. Monitor National Marine Sanctuary

NC Estuarine Research Reserves

- Currituck Banks NERR
- Kitty Hawk Woods CR
- Emily and Richardson Preyer Buckridge CCR
- Buxton Woods CR
- Rachel Carson NERR
- Pamlico Island CR
- Masonboro Island NERR
- Zeller's Island NERR
- Bald Head Woods CR
- Bird Island CR

Water Level Observation Network

- Duck Pier, NC
- Oregon Inlet Marina, NC
- Cape Hatteras Fishing Pier, NC
- Duke Marine Lab Beaufort, NC
- Wilmington, NC
- Wrightsville Beach, NC
- Sunset Beach, NC
- Springmaid Pier Myrtle Beach, SC
- Oyster Landing, SC (North Inlet Estuary)
- South Capers Island, SC
- Charleston, SC
- Fripp Island, SC

Geodetic Coordinator

- NC Coastal Management Program
- Coast Survey Navigation Managers
- Coast Survey Navigation Response Team
- Coast Survey Nautical Charts
- Center for Environmental Health and Biomolecular Research
- Hollings Marine Laboratory
- Coastal Services Center
- North Inlet - Winyah Bay National Estuarine Research Reserve
- South Carolina Coastal Management Program
- ACE Basin National Estuarine Research Reserve
- Carolinas Coastal Ocean Observation and Prediction System

National Weather Service

- WFO Newport/Morehead City, NC
- WFO Raleigh, NC
- WFO Wilmington, NC
- WFO Charleston, SC
- WFO Columbia, SC
- WFO Greenville/Spartanburg, SC
- WFO Blacksburg, VA
- WFO Wakefield, VA
- WFO Morristown, TN

Marine and Aviation Operations

- NOAA Ship NANCY FOSTER
- NOAA Ship RONALD H. BROWN

Office of Oceanic and Atmospheric Research

- Atmospheric Sciences Modeling Division
- Undersea Research Group
- NC Sea Grant College Program
- SC Sea Grant College Program



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Mission: Promote *OneNOAA* as a means to work more efficiently and enhance NOAA service to region and nation.

Objectives:

- Understand and support *OneNOAA* vision
- Contribute to NOAA planning and implementation (PPBES)
- Promote communication and integration of NOAA sponsored activities in the region
- Improve products, services, and public access.



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NOAA in the Carolinas Activities

- Volunteer Steering Committee
- Dedicated Outreach
- Forge Partnerships
- Create new products

NOAA Liaison: Dean Gulezian, NWS-Eastern Region (headquarters liaison)

NESDIS: Adam Smith, NCDC-Asheville

NMFS: Rachel Lo Piccolo, NCCOS-Beaufort

NOS: Jeff Payne, Coastal Services Center

NWS: Tom Kriehn, NWS- Newport, NC WFO,
Darin Figurskey, NWS- Raleigh, NC WFO

OAR: Andy Shepard, NOAA Undersea Research Center at UNCW, Katie Mosher, Jack Thigpen, NC Sea Grant, Bob Bacon, SC Sea Grant



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Annual Meeting– May 2004, Wilmington, NC

**26 Participants, all Line
Offices**

Agenda:

- Overview of NOAA PPBES process
- *OneNOAA* partnership project reports
- Breakouts identify new partnerships and outreach mechanisms





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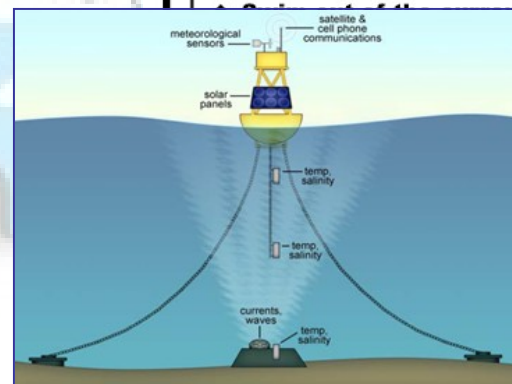
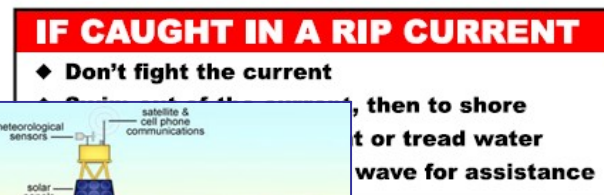
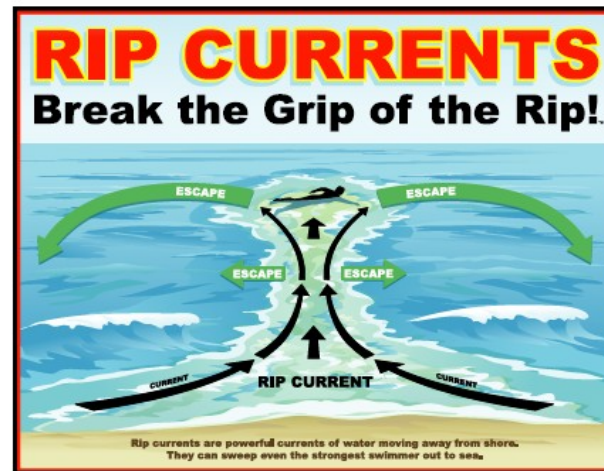
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NOAA in the Carolinas Accomplishments

New projects:

- “Grip of the Rip” expansion--
<http://www.ripcurrents.noaa.gov>
- Observing systems and products: Pier station, Wrightsville Beach; Lookout Shoals Buoy; *CarolinasCoast* Web portal





NOAA in the Carolinas Accomplishments

Outreach Mechanisms:

- *OneNOAA* exhibits (e.g. NC Boat & Fishing Shows, Seafood Festival)
- NinC Web site
- Email listserv



[http://
www.erh.noaa.gov/mhx/NOAACarolinas/
NOAACarolinas.html#](http://www.erh.noaa.gov/mhx/NOAACarolinas/NOAACarolinas.html#)



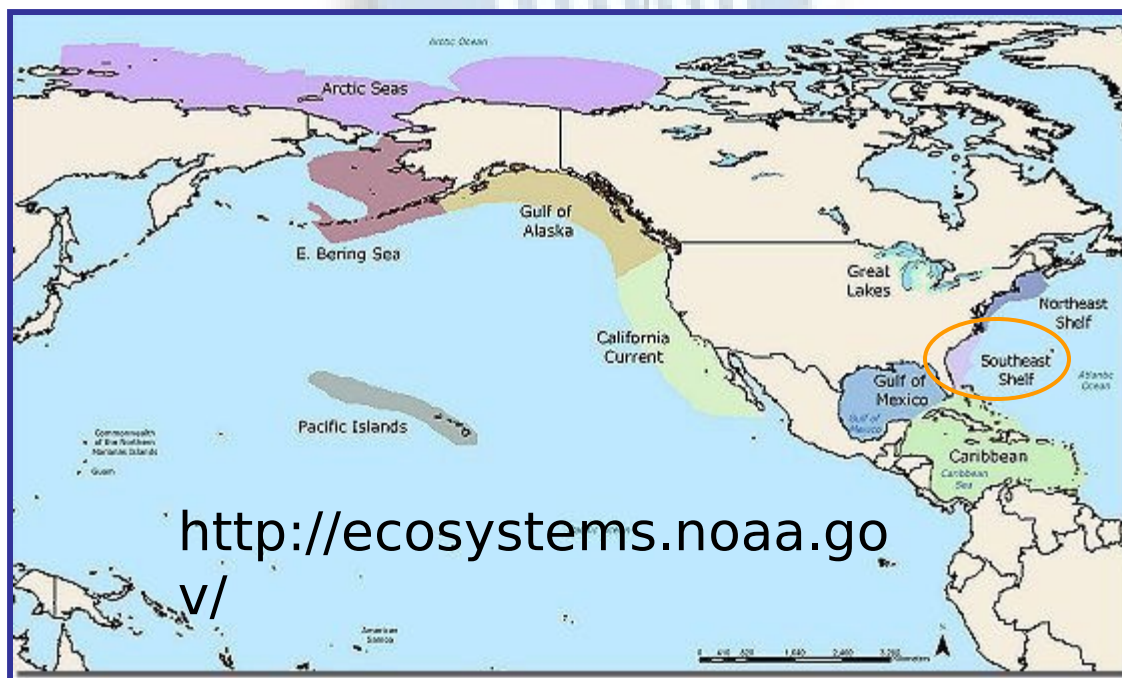
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NOAA Goal Team Recommendations, February 2005

- Continue outreach efforts
- Expand – serve as model for regionalization?



<http://ecosystems.noaa.gov/>

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2005 Annual Meeting

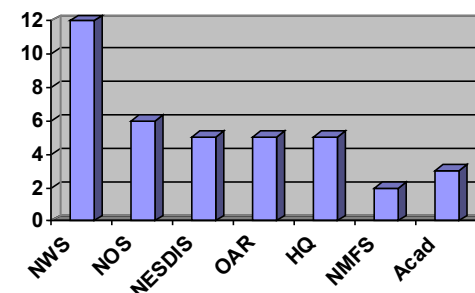
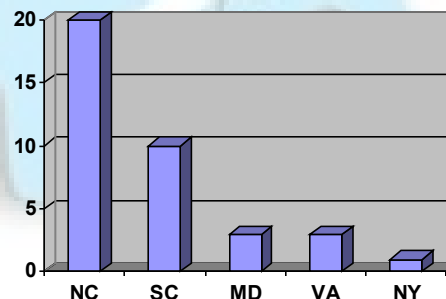
**37 participants, all
Line Offices**

Agenda:

- Plenary on *OneNOAA* (Rayder)
- Regional partnership project reports
- Breakouts:
 - define ideal *OneNOAA* project
 - identify new partnerships



Nov. 2005,
NCDC,
Asheville, NC





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Potential New Partnerships

Weather/Water/Climate:

- Coastal Services Center (CSC)/NWS/Sea Grant: Regional Hurricane Conference; sea breeze climatology outreach program

Ecosystems:

- NOS National Center for Coastal Ocean Science (NCCOS)/NWS/NCDC/NSSL: correlation between tropical turtle diseases & invasive species with regional climate change, rainfall, and increasing coastal development/run-off





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2009 PPBES Submission

[PPBES = NOAA Program Planning, Budget, and Execution System]

Criteria:

- **NOAA Relevant across goal teams**
- **Builds capacity**
- **Shares leadership**— “matrix” of line offices, goals, external partners
- **Leverages** & encourages new partners
- **Engages** end-users
- **Regional OneNOAA** applications of cutting-edge science and technology
- **Coastal Inland Flood Observation and Warning Project (CIFLOW)**



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CIFLOW Objectives

- **Couple** NOAA observational capability, NOAA hydrologic modeling, and NCSU coastal modeling systems for creation of accurate and timely products for decision makers in fisheries, coastal public health and safety, recreation, and transportation
- **Prototype** products and services for hazardous weather monitoring and flood prediction in coastal plain watersheds of TX/NC/SC
- **Conduct extension** efforts to identify **socio-economic impacts** of project and develop **informational products** that are responsive to inland and coastal constituent needs.



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CIFLOW Objectives & Tasks

Improve Precipitation Estimation:

- New techniques (single “NOAA” QPE algorithm) and technologies (dual polarization radar)
- Evaluate radar algorithm in support of both NWS FY10 deployment, and enhancement of QPE and hazardous weather algorithms

Develop Distributed Hydrologic Models:

- Couple precipitation estimates to hydrology models and assess improvements in stage and flow predictions

Assess Storm Surge Model Performance:

- Develop and improve performance of coastal storm surge model through improved input parameters (e.g., QPE)
- Demonstrate info exchange between stream-flow and coastal storm surge model and investigate need for tight vs. loose coupling.

Distribute New Decision Support Information:

- Couple NCSU storm surge, estuarine-watershed, and water quality models for studies of fisheries, land-use, public health & safety (e.g., beach closures), harmful algal blooms
- Develop products (e.g., Web-based) and distribute to decision-makers



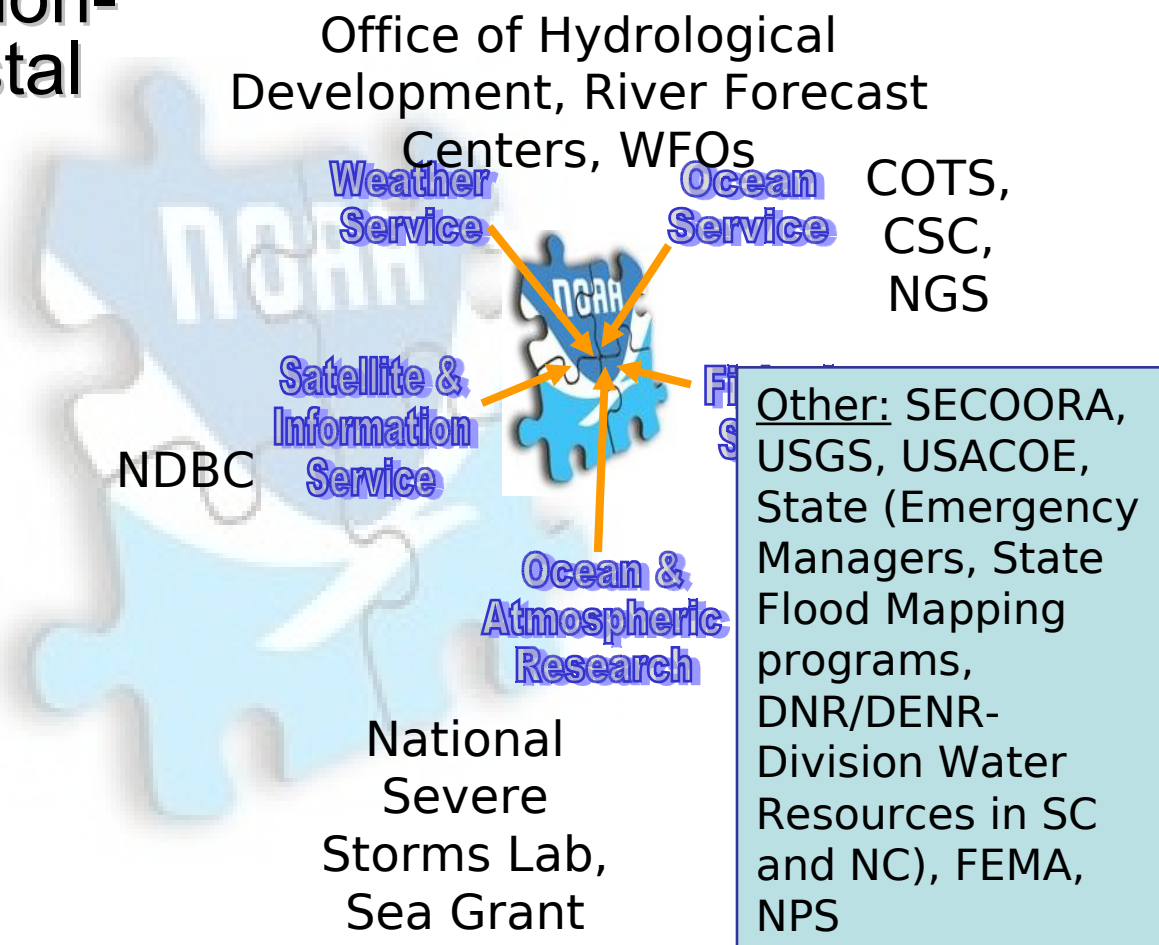
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CIFLOW Goals

- Improved decision-making by coastal constituencies relative to weather/water hazards
- Trans-L.O. & discipline collaboration
- New uses of emerging technologies





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CIFLOW Outcomes

- **Improved management**-- coastal/watershed health assessment, water resources management, coastal storm flooding hazard prediction, and severe storm hazard prediction:
 - **Informational products** responsive to inland and coastal constituent needs
 - **Improved coastal environment services** through cross-NOAA resources
 - **Greater scientific understanding.**
- **Demonstration** of latest research advances:
 - **multi-sensor QPE** and high resolution **distributed modeling** on time and space scales needed to improve flash flood warnings and flood forecasts
 - assessment of **dual polarization radar** in coastal environment in support of NWS FY10 deployment.



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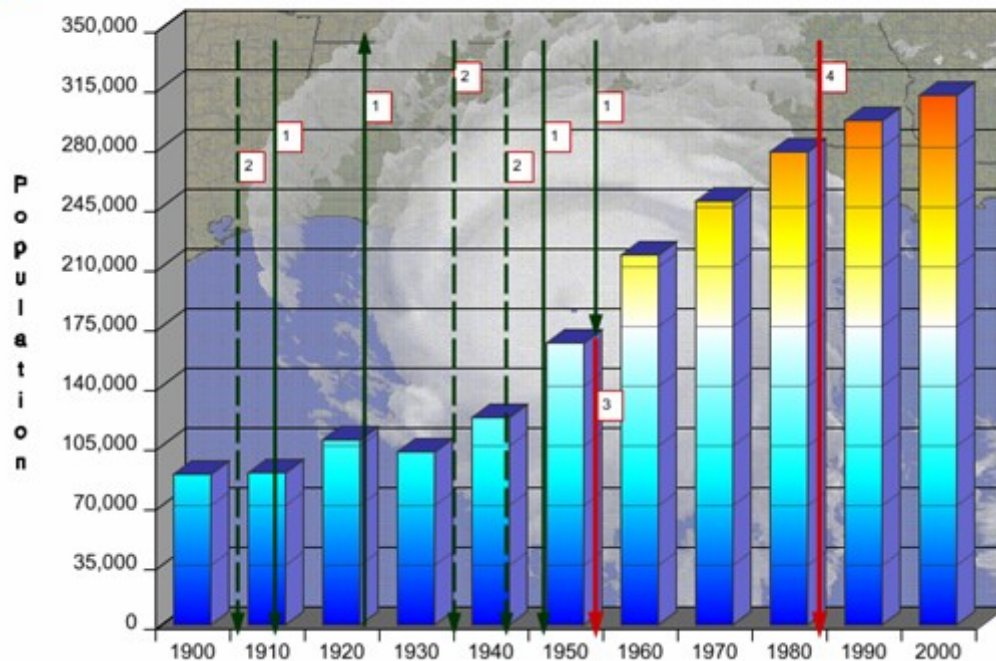
CIFLOW

Challenges:

- Problems of urbanization--rapid land development & population growth-- at core of NOAA stewardship mission
- Needs include:
 - **Data/measurements**
 - **Decision support tools**
 - **Extension** (outreach & education)



Charleston, SC



NC swine lagoon & spray field



Rocky Mount post-Floyd



Key Messages to NOAA Leadership

NOAA in the Carolinas:

- Advocates and lives *OneNOAA* vision while encouraging all partner identities and contributions.
- Welcomes guidance regarding PPBES process, including:
 - **Regional, cross-line office, trans-disciplinary projects** that support priority NOAA Goals into PPBES planning process
 - Local/regional annual **stakeholder meetings** (as opposed to HQ), guided and feeding back to NOAA PPI
 - **Access to Program Baseline Assessments and Program Plans** for use in local planning/execution.



Future NinC Objectives

Strengthen existing/develop new partnerships and outcomes:

- Improve coordination: expand steering committee, part-time regional coordinator (*need\$*)
- Continue inreach/outreach: 2007 annual meeting, Web site, OneNOAA materials
- Support PPBES 2009 submission (CIFLOW)
- Develop new multi-media outreach materials and distribution network.